

80. (Once Amended) An isolated nucleic acid molecule encoding an OCIF-binding protein comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 15, SEQ ID NO: 18, and SEQ ID NO: 19.
82. (Once Amended) A DNA fragment amplified using primers comprising SEQ ID NO: 9 and SEQ. ID NO: 6.
84. (Once Amended) The isolated nucleic acid of claim 80, wherein said OCIF-binding protein comprises amino acid residues 76-316 of SEQ ID NO: 1.
85. (Once Amended) The isolated nucleic acid of claim 80, wherein said OCIF-binding protein comprises amino acid residues 72-316 of SEQ ID NO: 1.
88. (Once Amended) The isolated nucleic acid of claim 80, wherein said OCIF-binding protein comprises the amino acid sequence of SEQ ID NO: 17.

### **REMARKS**

Claims 65-90 were pending in the Application. Upon entry of the present Amendment, claims 69, 80, 82, 84-85, 87-88, and 90 are pending and presented for reconsideration. Claims 69, 80, 82, 84, 85, and 88 have been amended. Applicants respectfully submit the amendment does not introduce new matter and is made without any intention to abandon the subject matter as filed, but with the intention that claims of the same, greater, or lesser scope may be filed in a continuing application. A marked-up copy of the amended claims and a clean copy of the amended claims is attached herewith for the Examiner's convenience.

### **Acknowledgements**

Applicants acknowledge that the Examiner has withdrawn the previous objections and rejections relating to:

- (i) the rejection of claims 69, 72, 77-81 and 84-90 under 35 U.S.C. §102(e), as being anticipated by Boyle; and
- (ii) the rejection of claims 79, and 82-87 under 35 U.S.C. §102(b), as being anticipated by Anderson.

### **Objections to the Claims**

The Examiner objected to claims 69, 77, 80, 81, 82, 84-86 and 88 for having a period rather than a colon after "SEQ ID NO". Applicants have amended claims 69, 80, 82, 84, 85 and 88 to replace the period with a colon. Claims 77, 81 and 86 have been canceled, thereby rendering moot the objection to those claims.

Applicants acknowledge that the Examiner has renumbered the claims. Thus, old claims 85-91 have been renumbered to be claims 84-90.

### **Rejection of Claims Under 35 U.S.C. §112, First Paragraph**

The Examiner maintained the rejection of claims 65-67, 72-79, 81, 87, 89 and 90 under 35 U.S.C. §112, first paragraph. Applicants traverse the rejection to the extent it is maintained over the claims as amended.

Claims 65-67 and 72-79, 81, and 89 have been canceled, thereby rendering moot the rejection to those claims. Applicants acknowledge that the Examiner stated on page 6 of the Office Action that "Applicants are . . . enabled for an isolated mouse osteoclastogenesis inhibitory factor (OCIF) binding protein comprising the amino acid sequence set forth in SEQ. ID NO: 1 or 16, and an isolated human OCIF binding protein comprising the amino acid sequence set forth in SEQ ID NO: 11 or 17, said polypeptide encoded by a polynucleotide comprising the nucleotide sequence set forth in SEQ ID NO: 2, 15, 12, or 19, respectively." Accordingly, Applicants have amended claim 69 to recite "[a] purified and isolated Osteoclastogenesis Inhibitory Factor (OCIF) binding protein comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 16, and SEQ ID NO: 17, wherein said OCIF-binding protein promotes osteoclast differentiation and maturation." In addition, Applicants have amended claim 80 to recite "[a]n isolated nucleic acid molecule encoding an OCIF-binding protein comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 15, SEQ ID NO: 18, and SEQ ID NO: 19. Claims 87 and 90 depend therefrom. Applicants submit that the claims, as amended, are fully enabled and respectfully request reconsideration of the claims amended.

**Rejection of Claims Under 35 U.S.C. § 102(e)**

The Examiner has maintained the rejection under §102(e) of claims 69, 72-78, 80-81, 88 and 90 under 35 U.S.C. §102(e) as being unpatentable over Anderson et al. (U.S. Patent 6,017,729). Not in acquiescence of the rejection but in order to expedite prosecution and allowance of the claims, Applicants have removed SEQ ID NO: 11 and SEQ ID NO: 12 from claims 69 and 80, respectively. Applicants submit that the amino acid and nucleic acid sequences for human soluble form of OCIF-binding protein (SEQ ID NO: 17 and SEQ ID NO: 19, respectively) are novel and could not have been anticipated by Anderson et al. Applicants therefore respectfully submit that the rejection is obviated by the amendment and that the claims are in condition for allowance.

**CONCLUSION**

Applicants submit that all claims as amended are allowable and respectfully request early and favorable action by the Examiner. If the Examiner believes that a telephone conversation with Applicants' agent would expedite prosecution of this application, the Examiner is cordially invited to call the undersigned.

Respectfully submitted,



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**MARKED-UP VERSION OF THE AMENDED CLAIMS**

69. (Twice Amended) [The OCIF-binding protein of claim 65,] A purified and isolated Osteoclastogenesis Inhibitory Factor (OCIF) binding protein comprising an amino acid sequence selected from the group consisting of SEQ ID NO[.]: 1, [SEQ ID NO. 11,] SEQ ID NO[.]: 16, and SEQ ID NO[.]: 17, wherein said OCIF-binding protein promotes osteoclast differentiation and maturation.
80. (One Amended) An isolated nucleic acid molecule encoding an OCIF-binding protein comprising a nucleic acid sequence selected from the group consisting of [SEQ ID NO. 12,] SEQ ID NO[.]: 15, SEQ ID NO[.]: 18, and SEQ ID NO[.]: 19.
82. (Once Amended) A DNA fragment amplified using primers comprising SEQ ID NO[.]: 9 and SEQ. ID NO[.]: 6.
84. (Once Amended) The isolated nucleic acid of claim 80, wherein said OCIF-binding protein comprises amino acid residues 76-316 of SEQ ID NO[.]: 1.
85. (Once Amended) The isolated nucleic acid of claim 80, wherein said OCIF-binding protein comprises amino acid residues 72-316 of SEQ ID NO[.]: 1.
88. (Once Amended) The isolated nucleic acid of claim 80, wherein said OCIF-binding protein comprises the amino acid sequence of SEQ ID NO[.]: 17.